REMARKS/ARGUMENTS

Claims 1-12 are pending in the captioned application. Claims 1-5 are under examination while claims 6-12 have been withdrawn. Applicants have amended claim 1 and cancelled claim 2. Applicants respectfully request reconsideration in view of the amendments and the following arguments.

Applicants first submit that the description on page 6, lines 12-17 (of the PCT application), to which the Examiner refers, is NOT conceded to be old or prior art. On the contrary, that is the description of the invention. The ÄktaXpress system mentioned there was not available before the filing of the patent application. The description on page 6 refers to Fig. 2, and that is description of the invention as stated on page 5, lines 1-2 (of the PCT application).

Applicants also submit that the claims are hereby amended. Claim 1 has been amended to include previous claim 2 and parts of claims 3 and 4. Furthermore, the wording "…the software is adapted to control the system to start and stop the storing of said fluid in the at least one loop when predetermined…." has been included into claim 1. Basis for this can be found for example on page 7, line 32 – page 8, line 10, page 10 lines 4-24 and page 11, lines 4-21 of the PCT application.

Claims 1-5 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Gorenstein (US 2002/0052701) in view of either Snyder (Introduction to modern Liquid Chromatography, 1979) or Applicants' description on page 6, lines 12-17 of the specification. Applicants respectfully disagree.

Applicants first submit that as discussed above, Applicants' description on page 6, lines 12-17, of the specification is not prior art.

Applicants submit that Gorenstein does not describe a chromatography system for the purification of proteins. Furthermore neither of the two references describes a plurality of chromatography columns and at least one loop for the storage of fluid. And even if they mention two signal parameters, neither of them uses the signal level and the rate of change of the signal level as is now specified in claim 1. In Gorenstein, the first and second derivative is used. Furthermore, it is now specified in claim 1 that the software is adapted to control the system to start and stop the storing of said fluid in the at least one loop when predetermined conditions for **one or both** of said signal parameters are fulfilled. This is not described in any of the documents. Nothing is in fact mentioned about a plurality of columns and loops. The using of the signal parameters for the storing of fluid in loops gives a reliable and automated system. The possibility to use either one or both of the signal parameters enables more robust peak detection.

Applicants submit that these new features enable separation of closely positioned peaks into different fractions or a peak and a plateau into different fractions. This is achieved by the present invention by the possibility to use the two specified signal parameters (i.e. the signal level and the rate of change of the signal level) in a flexible way – i.e. the possibility to use one or both of these signal parameters. In Gorenstein, an object is to improve the method for identifying peaks. However, they use the first and second derivative and nothing in Gorenstein would lead a skilled person to our inventive solution. He would get no further guidance from Snyder.

A further problem solved by the new features of claim 1 is the problem of time consuming manual operations that is required in a chromatography process in many steps. Applicants submit that a skilled person starting from any of the documents faced with these problems would not find the solution according to new claim 1. Since it has not been described anywhere before the filing of this application to use these two signal parameters for the fluid collection in loops between the columns in a chromatography system comprising many columns, Applicants submit that the claims are not obvious.

Such an automatic chromatography system in many steps (as defined in claim 1) is advantageous for example because of the improved safety in collection and the decreased risk of losing important material. The need of manual operations is decreased with this new system.

Applicants submit that claims 1 and 3-5 are not obvious over Gorenstein in view of Snyder.

Claims 1-5 are also rejected under 35 U.S.C. §103(a) as being unpatentable over Gorenstein (US 2002/0052701) in view of either Snyder (Introduction to modern Liquid Chromatography, 1979) or Applicants' description on page 6, lines 12-17 of the specification, further in view of Bonneyrat (US 4546643) or Michel (US 2003/0183565). Applicants respectfully disagree.

Applicants first submit that Gorenstein and Snyder have been discussed above. Further, Applicants' description on page 6, lines 12-17 of the specification is not old or prior art.

Applicants also submit that neither Bonneyrat or Michel describes a plurality of chromatography columns and at least one loop for the storage of fluid. And even if they mention two signal parameters none of them uses the signal level and the rate of change of the signal level as is now specified in claim 1. For example, in Bonneyrat a fixed level is used in relation to the baseline and the slope. Furthermore, it is now specified in claim 1 that the software is adapted to control the system to start and stop the storing of said fluid in the at least one loop when predetermined conditions for **one or both** of said signal parameters are fulfilled. This is not described in Bonneyrat or Michel. Nothing is in fact mentioned about a plurality of columns and loops. The using of the signal parameters for the storing of fluid in loops gives a reliable and automated system. The possibility to use either one or both of the signal parameters enables more robust peak detection.

Applicants submit that claims 1 and 3-5 are not obvious over Gorenstein in view of Snyder, further in view of Bonneyrat or Michel.

Applicants respectfully assert that the claims are in allowable form and earnestly solicit the allowance of the claims 1, 3-5.

Early and favorable consideration is respectfully requested.

Respectfully submitted,

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